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***The Behavioural Model of Homo Cooperativus and its Value for  
Understanding Intrapreneurship***

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# ***The Behavioural Model of Homo Cooperativus and its Value for Understanding Intrapreneurship***

## **Summary**

This paper aims to provide a new perspective on intrapreneurship under consideration of the behavioural model of Homo Cooperativus. The associated research question is, to what extent the behavioural model of Homo Cooperativus can contribute to an explanation of employees' attitudes towards intrapreneurship. Therefore, the willingness of employees to adopt intrapreneurial behaviour is critically analysed under consideration of this model. The paper first provides the theoretical background of intrapreneurship and the evolution of economic theories focussing on the development of Homo Cooperativus. A survey was carried out in Saxony, Germany and Scotland, UK to evaluate the willingness of employees to adopt intrapreneurial behaviour and to assess to what extent it relates to the behaviour of Homo Cooperativus. Based on the literature and the analysis of data, the paper evinces that several characteristics of the Homo Cooperativus also describe the behaviour and mind-set of an intrapreneur. These are the *superiority of cooperative action*, *heterogeneous characteristics*, *development of cooperation and responsibility* and *unequal initial conditions*.

**Word Count:** 5169

## **Introduction**

Since the term intrapreneurship was first defined almost four decades ago, it has become an important research field within the area of management research (Antoncic and Hisrich, 2001; Edú Valsania, Moriano and Molero, 2016; Pinchot, 1984). The more familiar concept of entrepreneurship is already hard to define (Bull and Willard, 1993; Gartner, 1990), but could be described as an act of innovation that involves endowing existing resources with new wealth-producing capacity (Drucker, 1985). Intrapreneurship however refers to behaviours by which, without having been requested to do so, employees innovate and seek business opportunities to benefit the organisation (Antoncic and Hisrich, 2001) and therefore become entrepreneurs at the workplace. While various aspects of intrapreneurship such as its positive impact on innovation and organisations' ability to thrive in today's rapidly changing business environments have benefitted from extensive research during the last years (Alperovitz, 2013; Alpan et al., 2010; Hamel and Breen, 2007; Shipper et al., 2014), research on the willingness of employees to adopt this behaviour remains low (Reuther and Schumann, 2016). This paper therefore aims to critically analyse this aspect under consideration of the behavioural model of Homo Cooperativus to provide a better understanding of intrapreneurial behaviour at work. Although the model of Homo Cooperativus is well known and recognized as an idea of man in the field of sustainability research (Puusa, Hokkila and Varis, 2016; Rogall, 2009; Rogall and Gapp, 2013; Zafirovski and Levine, 1999), the number of publications about the topic remains very limited. This furthermore emphasizes the necessity to undertake further research in the field.

Against this background the research question arises to what extent the behavioural model of Homo Cooperativus can contribute to an explanation of employees' attitudes towards intrapreneurship. To exploit the value of this model for understanding intrapreneurship, this paper addresses the following aspects: First, the theoretical background of intrapreneurship and the evolution of economic theories focussing on Homo Cooperativus are set out to provide a general understanding of the terms and an overview of related research that has been done before. Secondly, after a presentation of the research methodology, an analysis of collected data exposes employees' thoughts and attitudes towards their organisations and intrapreneurial behaviour and evaluates them in relationship to the behavioural model of Homo Cooperativus. Finally, the fit of this idea of man and its value for intrapreneurship are concluded and aspects for future research are exploited on this basis.

## **Theoretical Background**

### ***Intrapreneurship as a Source of Innovation and Growth***

In the middle of the 20<sup>th</sup> century, a starting development towards changing paradigms about people in organisations is observable through various scientific publications. When Douglas McGregor developed Theory Y, he assumed that employees have no inherited dislike of work (McGregor, 1960) and contradicts Taylor, who supposed that even if there were some highly motivated workers they would see colleagues who are lazy receiving the same payment and therefore become lazy themselves (Taylor, 1911). This is supported by Herzberg, who argues, that human beings have the natural need to avoid boredom and that work can become satisfactory (Herzberg, 1966). Maslow furthermore found that employees could be more creative by the '*expression*' of their ideas rather than just '*coping*' with given problems (Maslow, 1970). In 1978, these new ways of thinking led Gifford and Elizabeth Pinchot to come up with the term 'intrapreneurship' (Pinchot, 1978) that they defined as taking hands-on responsibility for creating innovation of any kind, within an organisation (Pinchot, 1985). Various authors, e.g. Burgelman (1983), Rule and D.W. (1988), Schollhammer (1982) and

Zahra (1991) have then shown interest in the concept because of the beneficial impact on the revitalisation of organisation and their performance (Antoncic and Hisrich, 2001). Years later, organisations still struggle to find sustainable new ways how their employees' creative potential could be better exploited (Juniper, 1996) and Intrapreneurship is still a loosely defined term (Gibb, 1996), but always refers to an '*expression*' of employees' creative ideas through entrepreneurial behaviour within rather than outside organisations. A development of various definitions over the years is presented in the table below:

**Table 1: Definitions of Intrapreneurship**

<i>(Pinchot, 1978)</i>	Intrapreneurs are the new class of intra-corporate entrepreneurs.
<i>(Pinchot, 1985)</i>	Intrapreneurs are "dreamers who do"; those who take hands-on responsibility for creating innovation of any kind within an existing organisation.
<i>(Gibb, 1996)</i>	Intrapreneurship is "the harnessing of entrepreneurial behaviour within the large company or institution associated with changes in corporate culture, organisation and structures often in favour of smallness and decentralization".
<i>(Antoncic and Hisrich, 2001)</i>	Intrapreneurship describes behaviours by which, without having been requested to do so, employees innovate and seek business opportunities to benefit the organisation.
<i>(Parker, 2011)</i>	Intrapreneurship is the practice of developing a new venture within an existing organisation, to exploit a new opportunity and create economic value.

Recently, since globalisation and digital transformation create fast changing and competitive environments, intrapreneurship-related theories have increasingly been recognised and addressed by scholars and the industry (Baruah and Ward, 2014; Calisto and Sarkar, 2017; Dentchev et al., 2016; Douglas and Fitzsimmons, 2012; Skarmeas, Lisboa and Saridakis, 2016), also because widely used hierarchical approaches that grant less freedom to employees harm the innovative performance (Alperovitz, 2013; Hamel and Breen, 2007; Kinicki, 2008; Kruse, Blasi and Freeman, 2012; Reuther, Johnston and Clausius, 2016).

Shipper et al. (2014) found that very successful organisations in various industries have an increased commitment of employees in the areas of leadership, ownership and collaboration, what might indicate that the basic principles of intrapreneurship have a positive impact on organisational success. Because innovation can be described as a driver of organisational success (Avermaete et al., 2003), it is also worth looking at how intrapreneurship affects the innovative performance. Alpkhan et al. (2010) assessed that the organisational innovativeness increases when entrepreneurs get the possibilities to access important resources and conditions for the development of innovative ideas and projects.

It is suggested that the above described approaches to intrapreneurship could benefit from a new perspective under consideration of the new behavioural model of Homo Cooperativus.

### ***The Evolution of Economic Theories***

The model of Homo Cooperativus can be described as an innovative and new perspective of human behaviour according to economic theories. It is an explanatory approach providing a better understanding of the theory of sustainable economics. To explain the model of Homo Cooperativus, it is necessary to evaluate previous economic theories and the various related ideas of man that were applied. This section therefore gives a condensed overview about the evolution of economic theories, focussing on classical economics, neoclassical economics, neoclassical environmental and resource economics and sustainable environmental economics and reflects on the pioneers who relate to those theories.

### *Classical Economics*

The theory of Classical Economics developed in the 18th and 19th century includes initial approaches of modern national economy, particularly theories about the value and distribution of goods. Central representatives are Adam Smith, David Ricardo and John Stuart Mill (Binswanger, 2010; Fry, 1992; Hollander, 1992; Ricardo, 2006). Smith characterised the fundamental ideas of classical economics and described the advantages of the division of labour. He also warns of the risks of exercising the same activities over a longer period, which can result in dulling the mind. In general Smith identifies labour as initial aspect of wealth (Smith, 1776).

The basis of the classical economic theory is the behavioural model of Homo Oeconomicus. This idea of man states that human aspire a maximisation of their own utility (Gray, 1987), but does not take the handling of natural resources in a sustainable way into account. In fact, this aspect was nearly insignificant (Faber, Petersen and Schiller, 2002).

### *Neoclassical Economics*

The theory of Neoclassical Economics developed out of the theory of Classical Economics at the end of 19th century. It was mainly founded through Jevons and Walras and represents the predominant economic theory to date. The main element of Neoclassical Economics is the allocation of limited resources in complete markets and the consideration of marginal productivity and utility (Wohltmann, 2016). Walras established an equilibrium model for explaining and determining relative prices in economic systems concentrating on purely mathematical explanatory approaches. Though the basic aspects of his theory were already researched by the representatives of Classical Economics, Walras is regarded as the founder of economics as an exact science (Van Daal, 1998; Walras and Jaffé, 1965).

Equivalent to Classical Economics, the behavioural model of Homo Oeconomicus complies with this economic theory. Natural resources, their sustainability and fair distribution are also as irrelevant as in Classical economical approaches (Rogall, 2012).

### *Neoclassical Environmental and Resource Economics*

The first time environmental protection gained in importance was in the 1970s. The Club of Rome's<sup>1</sup> research on environmental protection can be seen as the essential foundation of the sustainability debate that lasts until now. The debate covered the challenge of present generations economic behaviour regarding future generations. Striving for permanent economic growth was criticized due to the incompatibility with the natural boundaries of human activities (Meadows et al., 1972).

In contrast to previous economic theories, the Neoclassical Environmental and Resource Economics connect the economic system with the ecological system. Nevertheless, the fundamentals of Neoclassical Economics have remained (Stiglitz, 1974). For that reason, it is still rather the behavioural model of Homo Oeconomicus that complies with this theory.

### *Sustainable Environmental Economics*

Whilst the theory of Ecological Economics was developed in the 1980s as a subfield of Sustainable Science, Sustainable Economics emerged as part of Ecological Economics in the 1990s (Rogall, 2012). The field of Sustainable Economics deals with sustained processes and strategies considering regional and global factors (United-Nations, 1983; WCED, 1987) and furthermore includes environmental and social influences (Müller, 2015). According to Spangenberg, the topic sustainability comprises the integration of dimensions and policies to an innovative, coherent and therefore effective strategy (Spangenberg, 2005). This builds

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<sup>1</sup> Club of Rome: Global non-profit organisation consisting of several experts with the aim of developing systems and processes for a sustainable development.

upon the findings of Brand, who points out the difficulty to unify the global efforts concerning sustainability due to diverse cultural and institutional paradigms. Brand describes sustainability as a fuzzy, controversially discussed model based on different interests and conceptions of the world and nature (Brand, 2002).

In spite of its importance, the predominating economic theories were not transformed for the purpose of sustainability (WCED, 1985). One of the present pioneers of Sustainable Economics and its development towards a transdisciplinary approach is Professor Holger Rogall who researched common and traditional economic theories and reformed the behavioural model of Homo Oeconomicus. He developed the behavioural model of Homo Cooperativus/ Homo Heterogenus (Rogall, 2012). Furthermore, Daudi and Sotto researched the operation of cooperative organisations and the metamorphosis of Homo Cooperativus (Daudi and Sotto, 1986). The following chapter lays out the fundamental aspects of the behavioural model of Homo Oeconomicus and distinguishes alternative models such as Homo Cooperativus/ Homo Heterogenus.

### ***The Behavioural Model of Homo Oeconomicus***

In accordance with the above described economic theories, the behavioural model of Homo Oeconomicus is the most applied model in economic sciences (Katterle, 1994; Kirchgässner, 1991; Rost, 2008; Schambeck, 1986). Its main characteristics are summarised in Table 2:

**Table 2: Key characteristics of the Homo Oeconomicus  
(own table according to Kirchgässner, 1991 & Rogall, 2012)**

<b>Homo Oeconomicus</b>	
<i>Self-interest</i>	...every individual just pursues and implements his or her interest
<i>Rationality</i>	...the human being behaves rational according to maximum and minimum principle in a descriptive sense
<i>Utility Maximisation</i>	...primary aim of the Homo Oeconomicus; neutral assessment of fellow human beings; cooperation with fellow human beings target personal advantage
<i>Reaction to Restrictions</i>	...the human being reacts to changed environmental conditions; economics as science of changes and relations
<i>Preferences</i>	...every individual has its own consistent and fixed preferences
<i>Complete Information</i>	...holistic level of information; information about all action alternatives

As for every behavioural model, it has to be considered that the character of Homo Oeconomicus cannot be generalised as a ‘real’ human being, but constitutes a construct to explain economical processes and decisions. The model is abstracted from totality to get average and stable declarations about human economical behaviour for analytical purposes (Franz, 2004).

However, the significance and correctness of the model of Homo Oeconomicus were also discussed in economic science. In 1950, the later Nobel Prize winner Herbert A. Simon doubts the hypotheses of the behavioural model of Homo Oeconomicus in public for the first time. He questioned the assumption that human beings do not only need to know all action alternatives, but also the possible consequences of the decisions (Heuser, 2002). The emergence of Behavioural Economics furthermore refuted the assumptions of Homo Oeconomicus several times and questioned the characterisation of this model (Brost and Hans, 2009). It is furthermore claimed that the verification of the hypothesis of egoistic and rational

human beings might be inadequate and that they are probably not as rational and selfish as economists desire for modelling reasons (Lüdemann, 2007; Ockenfels and Raub, 2010). Taking that into account, the human being has not changed, but economics has transformed by accepting these new ideas and empiric results (Ingun, 2005).

### ***The Behavioural Model of Homo Cooperativus***

Fundamental for sustainable economic theory and its future-oriented alignment, as well as realisation, is the development of a new behavioural model. According to that, it is the task of Sustainable Economics to replace the behavioural model of the Homo Oeconomicus with a more realistic one (Rogall, 2012).

As a model closer to reality and considering Sustainable Economics, Rogall defined the behavioural model of Homo Cooperativus. The term Homo Heterogenus is used synonymously in Rogall's work (Rogall and Gapp, 2015). The following table characterises this model:

**Table 3: Key characteristics of the Homo Cooperativus  
(own table according to Rogall, 2012)**

<b>Homo Cooperativus</b>	
<i>Empathy</i>	...compassion and the ability to feel pain, grief, fear, etc.
<i>Love</i>	...affection towards fellow humans (colleagues, friends, etc.)
<i>Superiority of cooperative action</i>	...recognition of individuals' dependence on confirmation/ support and of greater synergetic effects in long-term cooperation
<i>Unequal initial conditions</i>	...recognition of individuals' unequal skills and level of information
<i>Various aspects affect behaviour</i>	...economical, rational, social and psychological factors
<i>Heterogeneous characteristics</i>	...self-interest but strong will for helpfulness and cooperation
<i>Development of cooperation and responsibility</i>	...principle of minimum fairness: willingness to cooperate and to act unselfish, but dependence on an environment of trust
<i>Manipulability, cruelty, irrational risk tolerance</i>	...manipulability due to striving for confirmation and attention

As noted before, the behavioural model of Homo Cooperativus was analysed before by Daudi and Sotto in 1985. According to their findings, it is the key element of cooperative organizations. Whilst Rogall based his model solely on economic theory, Daudi and Sotto's draft was built on theories of organisational structure and behaviour referring to e.g. Holyoake (1908) and Pfeiffer (1982) who refer to basic assumptions related to Homo Cooperativus already.

Daudi and Sotto researched whether a completely new type of Homo Cooperativus emerges because of changes due to new environmental challenges. They come to the conclusion that this hypothesis did not verify and differentiate the behavioural model into two kinds of Homo Cooperativus instead. These are the Homo Cooperativus Epistemologicus (HCE.) and the Homo Cooperativus Pragmaticus (HCP). According to them, the model of Homo Cooperativus they were originally looking for is non-existent (Daudi and Sotto, 1986).

It is rather interesting that Rogall does not refer to Daudi and Sotto in his academic work, given that these three authors are the only scholars who originally developed a behavioural model of Homo Cooperativus. One reason might be that Rogall's primary focus is on



explanatory approaches of transdisciplinary sustainable development and realisation possibilities of sustainable economics (Rogall, 2012) whilst Daudi and Sotto researched cooperative organisations and the role of Homo Cooperativus in the capitalism system (Daudi and Sotto, 1986).

This paragraph looks into a comparison of the two ideas of man related to Neoclassical and Sustainable Economics: Whereas the standard model of Homo Oeconomicus is based on mathematical functions focusing on the exchange of goods rather than production and time, the model of Homo Cooperativus regards mathematical representation to be of minor importance because functions do not contain time or subjective and personal influence factors. It focuses on industrial societies considering sustainable economics centred production, consumption, fair distribution and the variable preferences of individuals. In the Homo Oeconomicus model, technology is a given parameter whilst the model of Homo Cooperativus takes the constant technological change into account. Assessing the nature of decision making, the human being is seen as strictly rational in terms of the deciding nature in case of the Homo Oeconomicus. The Homo Cooperativus reflects the human potential of cooperation, idealism and self-interest and respects the fact that human beings do not always act for their best interest. Whilst consumers behave strictly rational focused on self-interest and market participants have all necessary information according to the behavioural model of Homo Oeconomicus, this point of view is extended in the model of Homo Cooperativus. New findings of other scientific disciplines like psychology and anthropology are integrated and the decisions of all economic actors are considered to be affected by unawareness and further subjective factors. These differences of the two ideas of man are outlined in the table below:

**Table 4: Comparison of Homo Oeconomicus and Homo Cooperativus**  
(own table according to Rogall, 2012)

	<b>Homo Oeconomicus (of the Neoclassical Economics)</b>	<b>Homo Cooperativus (of the Sustainable Economics)</b>
<i>Focus of the model</i>	functional model focusing on the analysis of the exchange of goods	non-functional model focusing on the analysis of industrial societies including production, consumption and fair distribution
<i>View on technology</i>	technology is regarded as given	constant technological change is considered
<i>Nature of decision making</i>	strictly rational nature of decision making	nature of decision making influenced by cooperation, idealism and self-interest
<i>View on behaviour and information</i>	strictly rational behaviour, all market participants have all necessary information	behaviour affected by unawareness, incomplete information and further subjective factors

The behavioural model of Homo Cooperativus assumes that personal needs and interests are as important as striving for fairness and community. In accordance with Jonas, Rogall advises not to believe in a change of human nature and rather in a better description of the existing human nature (Jonas, 1979; Rogall, 2012). Both characterisations of Homo Cooperativus from Rogall as well as Daudi and Sotto show that in contrast to Homo Oeconomicus, the Homo Cooperativus is led by social coherences and framed by social, moral but also institutional conditions. Whilst Rogall regards the Homo Cooperativus as a mixture of cooperative and self-interested nature, Daudi and Sotto demonstrate that the main objective of the Homo Cooperativus is the welfare of the cooperative movement and society.

## **Critique of Homo Cooperativus**

As the behavioural model of Homo Cooperativus according to Rogall and Daudi and Sotto experienced little prominence in the international academic literature yet, authors explicitly criticising the model are hard to find. However, the opportunity of a critical reflection shall not be missed in this paper.

The critical analysis of the behavioural model of Homo Cooperativus shows the inclusion of social factors is a key feature of the characterisation of this model and it can be noted that uncertainty prevails whether this characteristic is sufficient for a complete behavioural change. Furthermore, each human being that is characterised as Homo Cooperativus has its own characteristics including individual strength and weaknesses, what explains its necessity to depend on others constantly (Rogall, 2012). Due to this varying behavioural traits one can raise the question, whether it is possible to make a general statement concerning the behaviour of Homo Cooperativus in an economic system at all.

To date there is no uniform definition of Homo Cooperativus and its characteristics. The multiple representations and explanations of the behavioural model also reflect in the differences between Rogall's and Daudi and Sotto's models, although both are proven by the use of scientific methods and discussions.

## **Methodology**

To carry out this research project, a quantitative methodology is used to assess employees' attitudes towards intrapreneurship and their willingness to adopt intrapreneurial behaviour in an explorative manner. A survey was designed and carried out in 2015 targeting working individuals throughout all industries, gender and age group within businesses in Germany, especially Saxony and the UK, especially Scotland. These regions had been chosen for the reason of good local networks of the researchers involved in this project.

**Table 5: Economic sectors in Saxony 2015**

<b>Own Survey</b>			<b>Statistical Office of the Free State of Saxony</b>		
Economic sector	Frequency	Percent	Economic sector	Frequency	Percent
<b>Agriculture</b>	<b>1</b>	<b>1.0</b>	<b>Agriculture</b>	<b>28.9</b>	<b>1.5</b>
<b>Industry</b>	<b>21</b>	<b>21.0</b>	<b>Industry</b>	<b>572.7</b>	<b>29.5</b>
manufacturing	13	13.0			
construction	8	8.0			
<b>Services</b>	<b>76</b>	<b>76.0</b>	<b>Services</b>	<b>1334.2</b>	<b>69.0</b>
public administration	24	24.0			
other services	12	12.0			
education & training	10	10.0			
healthcare	9	9.0			
trade	8	8.0			
finance & insurance	6	6.0			
tourism & gastronomy	3	3.0			
energy & water supply	2	2.0			
traffic & transport	2	2.0			
<b>Others</b>	<b>1</b>	<b>1.0</b>			
<b>n.a.</b>	<b>1</b>	<b>1.0</b>			
<b>Total</b>	<b>100</b>	<b>100.0</b>	<b>Total</b>	<b>1936.0</b>	<b>100.0</b>

The set goal was to receive 100 responses for each country. A mixture of non-probability sampling methods including quota and volunteer sampling approaches under consideration of social network theory led to 120 valid completed surveys, 100 from Germany and 20 from the UK. As the response rate in the UK was that low, an appropriate quota for a cross-country comparison was not reached. Therefore, the further analysis relates solely to the data from Saxony, Germany.

Given the limited resources for this research project, non-representative sampling approaches had to be chosen and it is not possible to make generalising conclusions for the population by analysing the sample. However, the sample is well structured and shows strong similarities to the official structure of the Saxon economy in terms of the targeted industry sectors what is outlined in table 5. This should allow sufficient insights for the aims of this research project. Further details of the sample structure are set out in Annex I.

According to official numbers from the Statistical Office of the Free State of Saxony that conducted a representative study with a sample size of 1936, most employees work in services (69.0 %), while 29.5 % work in industry and only 1.5 % in the agricultural sector, indicating an above average focus on industry compared to national average (Statistisches-Landesamt-des-Freistaates-Sachsen, 2016).

The data analysis has been conducted using IBM SPSS statistics and the displayed tables follow the standard style of this software. The results of the conducted survey are presented and analysed in the following section in order to assess the value of the behavioural model of Homo Cooperativus to describe employees' attitudes towards intrapreneurship.

## **Data Analysis and Findings**

As this paper aims to provide a new perspective on intrapreneurship by researching to what extent the behavioural model of Homo Cooperativus can contribute to an explanation of this phenomenon, the survey focused on an analysis of employees' attitudes towards their organisations and their willingness to adopt intrapreneurial behaviour. Within this section, the findings of the survey are presented and it is assessed to what extent the behaviour of employees who are willing to act as intrapreneurs relates to the behaviour of the Homo Cooperativus.

To determine the present situation of employees concerning intrapreneurship, it is intended to critically analyse their opportunities and willingness to share and contribute their information, knowledge, expertise, opinions and own ideas within their organisation. Table 6 shows that a majority of the surveyed employees has the frequent opportunity to contribute their knowledge and expertise (69.0 %) and that their opinion about issues within the organisation are heard (56.0 %).

Both factors are considered to be indicators for a positive culture related to sharing information, knowledge and opinions, which is considered to be an important prerequisite for intrapreneurial behaviour and successful intrapreneurship (Harms, 2015; Menzel, Aaltio and Ulijn, 2007; Parker, 2011). This is a first link to the behavioural model of Homo Cooperativus that is perceived to be a key element of cooperative organisations (Daudi and Sotto, 1986) and describes people's need to share their information and knowledge, first because of their unequal conditions in terms of, for example, the level of information and second because of their characteristics that goes beyond self-interest including helpfulness and cooperation (Rogall and Gapp, 2013).

**Table 6: Contribution of knowledge and expertise/ Hearing of opinion**

<b>I get the opportunity to contribute my knowledge and expertise frequently.</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	totally agree	29	29.0	29.0	29.0
	tend to agree	40	40.0	40.0	69.0
	neither	15	15.0	15.0	84.0
	tend to disagree	5	5.0	5.0	89.0
	totally disagree	8	8.0	8.0	97.0
	n.a.	3	3.0	3.0	100.0
	Total	100	100.0	100.0	
<b>My opinion about internal company issues is heard.</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	totally agree	17	17.0	17.0	17.0
	tend to agree	39	39.0	39.0	56.0
	neither	16	16.0	16.0	72.0
	tend to disagree	8	8.0	8.0	80.0
	totally disagree	18	18.0	18.0	98.0
	n.a.	2	2.0	2.0	100.0
	Total	100	100.0	100.0	

As the generation of ideas is the starting point of any innovation process (Alekseevna, 2014; Galanakis, 2006), regardless if it happens in an entrepreneurial or intrapreneurial way, the opportunities of contributing own ideas is considered to be important for successful intrapreneurship as well. The in table 7 presented findings show that 64.0 % of those questioned agree or tend to agree that they feel motivated to show initiative regarding their own ideas, what could be interpreted as organisations' attempt to trigger intrapreneurial behaviour. One can also see that 55.0 % of the surveyed employees would prefer better opportunities to participate with their own ideas while 21.0 % don't.

**Table 7: Participation with own ideas**

<b>I feel motivated to show initiative regarding my own ideas.</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	totally agree	22	22.0	22.0	22.0
	tend to agree	42	42.0	42.0	64.0
	neither	19	19.0	19.0	83.0
	tend to disagree	10	10.0	10.0	93.0
	totally disagree	7	7.0	7.0	100.0
	n.a.	0	0	0	100.0
	Total	100	100.0	100.0	
<b>I would like to have better opportunities to participate with my ideas.</b>					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	totally agree	26	26.0	26.0	26.0
	tend to agree	29	29.0	29.0	55.0
	neither	19	19.0	19.0	74.0
	tend to disagree	7	7.0	7.0	81.0
	totally disagree	14	14.0	14.0	95.0
	n.a.	5	5.0	5.0	100.0
	Total	100	100.0	100.0	

One the one hand, this might be an indicator for intrapreneurial potential and organisational commitment (Nyhan, 2000), meaning that individual employees would like to act as an intrapreneur, but organisations are missing for example structural prerequisites to allow

intrapreneurship. On the other hand, it shows that almost a quarter of the surveyed employees has no interest in innovating and seeking business opportunities to benefit the organisation (Antoncic and Hisrich, 2001). These two perspectives are also found in the model of Homo Cooperativus. It is explained as Heterogeneous characteristics, the inner dispute of employees between self-interest and helpfulness or cooperation (Rogall, 2012). It can therefore be assumed that this behavioural model can help to explain employees' mind-sets that are related to the decision whether or not to adopt intrapreneurial behaviour.

As this might also indicate that an adequate compensation or rewards for intrapreneurial behaviour build a necessary prerequisite for its success, employees have been surveyed about the rewards they would be most likely to receive for excellent performance. As the findings presented in table 8 show, it appears that most of those surveyed stated that they receive monetary rewards such as a pay rise (29.0 %) or bonus payments (26.0 %). Another 23.0 % of the questioned employees get the possibility of an enhanced role, that might suit the idea of an intrapreneur becoming the leader of a team that is responsible for a project. Surprisingly however, 18.0 % indicate that they do not receive any rewards at all or none of those given in the survey.

**Table 8: Overview of rewards**

Which of the following rewards are you most likely to receive for excellent performance?						
	pay rise	monetary bonuses	enhanced role	extra day(s) off	non-monetary bonuses	no rewards
Frequency	29	26	23	5	4	18
Percent	29.0	26.0	23.0	5.0	4.0	18.0

The investigation of individuals' motivation to act as entrepreneurs has been researched intensively over the last decades (Baumol, 1990; Carter et al., 2003; Krueger and Carsrud, 1993; McMullen and Shepherd, 2006) and it has been found that especially a high commitment of employees and their desire to shape the future of their organisations reflect entrepreneurial behaviour (Antoncic and Antoncic, 2011; Calisto and Sarkar, 2017), what is positively related with intrapreneurial behaviours (Holt, Rutherford and Clohessy, 2007; Park, Kim and Krishna, 2014). Therefore, employees have been questioned whether or not they are motivated by shaping their company's future.

**Table 9: Shaping organisations' future**

Actively shaping the future of my organisation motivates me.					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	totally agree	25	25.0	25.0	25.0
	tend to agree	35	35.0	35.0	60.0
	neither	17	17.0	17.0	77.0
	tend to disagree	7	7.0	7.0	84.0
	totally disagree	12	12.0	12.0	96.0
	n.a.	4	4.0	4.0	100.0
	Total	100	100.0	100.0	

The results show that 60.0 % of the surveyed employees totally agree or tend to agree that they are motivated by this factor, what might lead to the assumption that they would consider taking the role of an intrapreneur and even perceive intrapreneurial behaviour at the workplace as rewarding. Whilst 17.0 % are apparently uncertain, 19.0 % would not feel motivated through actively shaping the future of their company. First, this again shows a relation to the Heterogeneous characteristics of the Homo Cooperativus (Rogall, 2012) that

help to explain these attitudes. Secondly, it underlies the obvious point that not every employee will have the mentality of an intrapreneur – as not everyone has the mentality of an entrepreneur as well.

A last aspect is directly linked to the behavioural model of Homo Cooperativus and intrapreneurship. The Homo Cooperativus need an environment of trust to show initiative, to cooperate and to act in an unselfish manner. Such environment might also be important for successful intrapreneurship as the intrapreneur shares creative ideas and relies on colleagues' support and trust. This relates to previous research concluding that participation, feedback and empowerment of the staff have a positive impact on interpersonal trust (Hassan et al., 2012) and that this might lead to increased productivity and organisational commitment (Nyhan, 2000). Table 10 shows that 58.0 % of the surveyed employees stated that they would describe the relationships at work as at least rather characterised by cooperation and trust, whereby only 14.0 % state that an environment that is strongly characterised by cooperation and trust prevails. However, 28.0 % claim that relationships characterised by monitoring and control shape the working environment. Under consideration of Antoncic and Hisrich (2001) and Hassan et al. (2012), it can be concluded that Intrapreneurship is much more likely to be successful in an environment of cooperation & trust.

**Table 10: Cooperation and trust versus monitoring and control**

How would you describe the relationships in your company?					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	strong cooperation & trust	14	14.0	14.0	14.0
	cooperation & trust	24	24.0	24.0	38.0
	rather cooperation & trust	20	20.0	20.0	58.0
	balanced	13	13.0	13.0	71.0
	rather monitoring & control	7	7.0	7.0	78.0
	monitoring & control	9	9.0	9.0	87.0
	strong monitoring & control	12	12.0	12.0	99.0
	n.a.	1	1.0	1.0	100.0
	Total	100	100.0	100.0	

## Conclusion

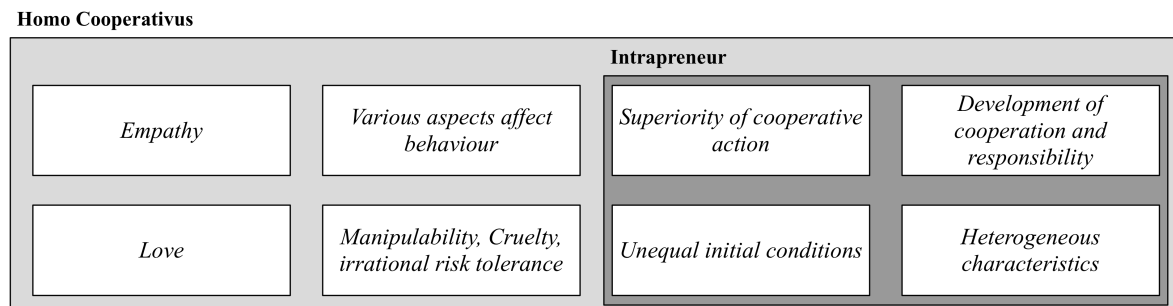
This paper evaluates to what extent the behavioural model of Homo Cooperativus can contribute to an explanation of employees' attitudes towards intrapreneurship. It has been shown that whilst the background and positive impacts of this phenomenon are widely recognised in the literature, research on the willingness to adopt intrapreneurial behaviour remains low. To provide a better understanding of this behaviour and to analyse the related theoretical background, the yet little investigated model of Homo Cooperativus is used to analyse the results of a survey questioning 100 employees of various backgrounds (age, gender, economic sector) in Saxony, Germany.

The evaluation of employees' motivation to act as intrapreneurs responds insightfully to the current debate about intrapreneurship's positive impact on organisational growth and innovation. The findings indicate that there is a wide motivation to act as intrapreneurs in the surveyed organisations. Employees do not only desire better opportunities to contribute their ideas, what would be possible by taking the role of an intrapreneur, the survey results indicate that they also feel motivated by doing so.

It appears that intrapreneurial behaviour suits well with the described attitudes of the Homo Cooperativus and that this behavioural model has a certain value in explaining the intrapreneur's mind-set and underlying it with theory. Figure 1 shows the characteristics that

an intrapreneur and the Homo Cooperativus have in common. These are the *superiority of cooperative action*, *heterogeneous characteristics*, *development of cooperation and responsibility* and *unequal initial conditions*.

**Figure 1: Intrapreneurial characteristics as part of Homo Cooperativus**



The *superiority of cooperative action* and the *heterogeneous characteristics* refer to a willingness for cooperation, commitment and initiative. They have been recognised in the literature, e.g. (Antoncic and Hisrich, 2001; Parker, 2011; Rogall, 2012), and the findings that show employees willingness to share own ideas, to contribute knowledge, expertise and opinions. The *development of cooperation and responsibility* relates to the principle of minimum fairness and shows that cooperative and unselfish behaviour strongly depends on an environment of trust. This is supported by the research of Hassan et. al. (2012) and Nyhan (2000) and it has been shown in the findings that a small majority of the surveyed employees state to work in an according environment that might enable intrapreneurial behaviour. The last aspect refers to *unequal initial conditions* and is recognisable in different mentalities of employees that do not always fit with the mind-set of an intrapreneur or entrepreneur. In conclusion it can be said that intrapreneurial behaviour strongly relates to the Homo Cooperativus and that this behavioural model can explain and theoretically substantiate the idea of intrapreneurship. Future research could enhance the significance of the suggested findings by a collection of additional data and the identification of further indicators of employees' willingness for intrapreneurial behaviour related to the characteristics of the Homo Cooperativus.

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## Annex I – Sample Structure

### Company Information

#### Which economic sector is most likely related to your company?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid n.a	1	1.0	1.0	1.0
energy & water supply	2	2.0	2.0	3.0
tourism & gastronomy	3	3.0	3.0	6.0
manufacturing	13	13.0	13.0	19.0
healthcare	9	9.0	9.0	28.0
education & training	10	10.0	10.0	38.0
traffic & transport	2	2.0	2.0	40.0
public administration	24	24.0	24.0	64.0
other services	12	12.0	12.0	76.0
finance & insurance	6	6.0	6.0	82.0
Agriculture	1	1.0	1.0	83.0
trade	8	8.0	8.0	91.0
construction	8	8.0	8.0	99.0
others	1	1.0	1.0	100.0
Total	100	100.0	100.0	

#### How many employees work for your company?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid n.a.	1	1.0	1.0	1.0
≤ 10 employees	12	12.0	12.0	13.0
≤ 50 employees	20	20.0	20.0	33.0
≤ 250 employees	19	19.0	19.0	52.0
> 250 employees	48	48.0	48.0	100.0
Total	100	100.0	100.0	

#### What is your particular position within your company?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid n.a.	5	5.0	5.0	5.0
management	6	6.0	6.0	11.0
employee	79	79.0	79.0	90.0
freelancer	2	2.0	2.0	92.0
other	8	8.0	8.0	100.0
Total	100	100.0	100.0	

### Personal Information

#### What is your sex?

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid n.a.	1	1.0	1.0	1.0
male	47	47.0	47.0	48.0
female	52	52.0	52.0	100.0
Total	100	100.0	100.0	

**What is your age-group?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	n.a.	1	1.0	1.0	1.0
	under 20	2	2.0	2.0	3.0
	20 – 29	13	13.0	13.0	16.0
	30 – 39	15	15.0	15.0	31.0
	40 – 49	30	30.0	30.0	61.0
	50 – 59	33	33.0	33.0	94.0
	60 or older	6	6.0	6.0	100.0
	Total	100	100.0	100.0	

**What is your nationality?**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	German	100	100.0	100.0	100.0